

1 MSRTMARTRPGQLG--RVTGAGGWGSAAVC 1342011  
1 MATPVPPSPRHLRLRLRLLSG-----LI 1342011  
29 RGRALRGREPALPSASFPPDVAAACPGSLDCA 1342011  
25 LGALNG-----ATAARRPDATTCPGSLDCA 1342011  
59 LKRRARCPPGAHAACGPPCLQPFPQEDQQQLCV 1342011  
50 LKRRARKCPPGAHAACGPPCLQSFQEDQRFCCV 1342011  
89 PRMRPPPGGGRPPQPRRLEDEIDFLAQELA-- 1342011  
80 PRKHLSSSGELPPQPRLEEEIDSLAQELA LK 1342011  
117 RKE SGHS---TPPLPKDRQRLPEPA-TLGF 1342011  
110 EKEAGHSRLTAQPLLERAQKLLPEPAATLGF 1342011  
143 SARGQGLELGLPSTPGTPTTPHTSLGSPV 1342011  
140 SQWQQLLEPLGLPSTHGTSSPTIPTHSSLSSRA 1342011  
173 SSDPVHMSPLLEPRGGQGGDLALVLLILAF CV 1342011  
170 SSGPVQMSPLEPQGRHGNGLTLVLLILAFCL 1342011

FIGURE 1A

203 A G A A A L S V A S L C W C R L Q R E I R L T Q K A D Y A - 1342011  
200 A S S A A L A V A A L C W C R L Q R E I R L T Q K A D Y A A GI452276

232 T A K A P G S P A A P R I S P G D Q R L A Q S A E M Y H Y Q 1342011  
230 T A K G P T S P S T P R I S P G D Q R L A H S A E M Y H Y Q GI452276

262 H Q R Q Q M L C L E R H K E P P K E L D T A S S D E E N E D 1342011  
260 H Q R Q Q M L C L E R H K E P P K E L E S A S S D E E N E D GI452276

292 G D F T V Y E C P G L A P T G E M E V R N P L F D H A A L S 1342011  
290 G D F T V Y E C P G L A P T G E M E V R N P L F D H S T L S GI452276

322 A P L P A P S S P P A L P 1342011  
320 A P V P G P H S L P P L Q GI452276

FIGURE 1B

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1 M A V N V Y S T S V T S E N L S R H D M L A W V N D S L H L 1880041  
1 M A V N V Y S T S V T S D N L S R H D M L A W I N E S L Q L GI 998357

31 N Y T K I E Q L C S G A A Y C Q F M D M L F P G C V H L R K 1880041  
31 N L T K I E Q L C S G A A Y C Q F M D M L F P G S I A L K K GI 998357

61 V K F Q A K L E H E Y I H N F K V L Q A A F K K M G V D K I 1880041  
61 V K F Q A K L E H E Y I Q N F K I L Q A G F K R M G V D K I GI 998357

91 I P V E K L V K G K F Q D N F E F I Q W F K K F F D A N Y D 1880041  
91 I P V D K L V K G K F Q D N F E F V Q W F K K F F D A N Y D GI 998357

121 G K D Y N P L L A R Q G Q D V A P P N P G D Q I F N K S K 1880041  
121 G K D Y D P V A A R Q G Q E T A V A P S L V A P A L N K P K GI 998357

151 K L I G T A V P Q R T S P T G P K N M Q T S G R L S N V A P 1880041  
151 K P L T S S S A A P Q R P I S T Q R T A A P K - - - A G GI 998357

FIGURE 2A

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181	P	C	I	L	R	K	N	P	P	S	A	R	N	G	G	H	E	T	D	A	Q	I	L	E	L	N	Q	Q	L	V	1880041
177	P	G	V	V	R	K	N	P	-	-	-	-	-	G	V	G	N	G	D	D	E	A	A	E	L	M	Q	Q	V	N	GI 998357
211	D	L	K	L	T	V	D	G	L	E	K	E	R	D	F	Y	F	S	K	L	R	D	I	E	L	I	C	Q	E	H	1880041
202	V	L	K	L	T	V	E	D	L	E	K	E	R	D	F	Y	F	G	K	L	R	N	I	E	L	I	C	Q	E	N	GI 998357
241	E	S	E	N	S	P	V	I	S	G	I	I	G	I	L	Y	A	T	E	E	G	F	A	P	P	E	D	D	E	I	1880041
232	E	G	E	N	D	P	V	L	Q	R	I	V	D	I	L	Y	A	T	D	E	G	F	V	I	P	D	E	G	G	-	GI 998357
271	E	E	H	Q	Q	E	D	Q	D	E	Y																			1880041	
261	-	-	-	-	P	Q	E	E	Q	E	E	Y																		GI 998357	

FIGURE 2B

1	M	G	E	D	A	A	Q	A	E	K	F	Q	H	P	G	S	D	M	R	Q	E	K	P	S	S	P	S	P	M	P	3201881
1	M	G	E	D	A	A	Q	A	E	K	F	Q	H	P	G	S	D	M	R	Q	E	K	P	S	S	P	S	P	M	P	GI 455719
31	S	S	T	P	S	P	S	L	N	L	G	N	T	E	E	A	I	R	D	N	S	Q	V	N	A	V	T	V	L	T	3201881
31	S	S	T	P	S	P	S	L	N	L	G	S	T	E	E	A	I	R	D	N	S	Q	V	N	A	V	T	V	H	T	GI 455719
61	L	L	D	K	L	V	N	M	L	D	A	V	Q	E	N	Q	H	K	M	E	Q	R	Q	I	S	L	E	G	S	V	3201881
61	L	L	D	K	L	V	N	M	L	D	A	V	R	E	N	Q	H	N	M	E	Q	R	Q	I	N	L	E	G	S	V	GI 455719
91	K	G	I	Q	N	D	L	T	K	L	S	K	Y	Q	A	S	T	S	N	T	V	S	K	L	L	E	K	S	R	K	3201881
91	K	G	I	Q	N	D	L	T	K	L	S	K	Y	Q	A	S	T	S	N	T	V	S	K	L	L	E	K	S	R	K	GI 455719
121	V	S	A	H	T	R	A	V	K	E	R	M	D	R	Q	C	A	Q	V	K	R	L	E	N	N	H	A	Q	L	L	3201881
121	V	S	A	H	T	R	A	V	R	E	R	L	E	R	Q	C	V	Q	V	K	R	L	E	N	N	H	A	Q	L	L	GI 455719
151	R	R	N	H	F	K	V	L	I	F	Q	E	E	N	E	I	P	A	S	V	F	V	K	Q	P	V	S	G	A	V	3201881
151	R	R	N	H	F	K	V	L	I	F	Q	E	E	S	E	I	P	A	S	V	F	V	K	E	P	V	P	S	A	A	GI 455719
181	E	G	K	E	E	L	P	D	E	N	K	S	L	E	E	T	L	H	T	V	D	L	S	S	D	D	D	L	P	H	3201881
181	E	G	K	E	E	L	A	D	E	N	K	S	L	E	E	T	L	H	N	V	D	L	S	S	D	D	E	L	P	R	GI 455719
211	D	E	E	A	L	E	D	S	A	E	E	K	V	G	R	S	P	R	G	R	E	I	K	R	S	-	-	-	R	P	3201881
211	D	E	E	A	L	E	D	S	A	E	E	K	M	E	-	E	S	R	A	E	K	I	K	R	S	S	L	K	K	V	GI 455719

FIGURE 3

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1 MSFLLPKLTSSKKEVDDQAIAKSTAEKVLVLRFF 1438978  
1 MSYMLPHLHNGWQVDDQAIALSEEDRVVVIIRF GI 2565275

31 GRDEDPVCLQLDDILSKTSSDLSKMAAIIYL 1438978  
31 GHDWDPTCKMDEVLVLSIAEKVKNFVAVIYLL GI 2565275

61 VDDVDTAVYTQYFDISYIPSTV - FFFNGQH 1438978  
61 VDI TEVPDFNKMVEL - YDPC TV MFFFRNKH GI 2565275

90 MKVDYG 1438978  
90 IMIDLGTGNNNKINWAMEDKKQEMVDIIETV GI 2565275

95 1438978  
120 YRGARKGRGLVVS PKDYSTKYRY GI 2565275

FIGURE 4

1 M A A P E E R D L T Q E Q T E K L L Q F Q D L T G I E S M D 2024773  
1 M - - - E A D G L T N E Q T E K V L Q F Q D L T G I E D M N GI 3688609

31 Q C R H T L E Q H N W N I E A A V Q D R L N E Q E G V P S V 2024773  
28 V C R D V L I R H Q W D L E V A F Q E Q L N I R E G R P T M GI 3688609

61 F N P P P S - - - - - R P L Q - - - - V N T A D H R 2024773  
58 F A A S T D V R A P A V L N D R F L Q Q V F S A N M P G G R GI 3688609

78 I Y S Y V V S R P Q P R G L L G W G Y Y L I M L P F R F T Y 2024773  
88 T V S R V P S G P V P R S F T G I G Y V I N F V F Q Y - F GI 3688609

108 Y T I L D I F R F A L R F I R P D P R S R - V T D P V G D I 2024773  
117 Y S T L T S I V S A F V N L G G G N E A R L V T D P L G D V GI 3688609

137 V S F M H S F E E K Y G R A H P V F Y Q G T Y S Q A L N D A 2024773  
147 M K F I R E Y Y E R Y - P E H P V F Y Q G T Y A Q A L N D A GI 3688609

167 K R E L R F L L V Y L H G D - - D H Q D S D E F C R N T L C 2024773  
176 K Q E L R F L I V Y L H K D P A K N P D V E S F C R N T L S GI 3688609

195 A P E V I S L I N T R M L F W A C S T N K P E G Y R V S Q A 2024773  
206 A R S V I D Y I N T H T L L W G C D V A T P E G Y R V M Q S GI 3688609

225 L R E N T Y P F L A M I M L K D R R M T V V G R L E G L I Q 2024773  
236 I T V R S Y P T M V M I S L R A N R M I V G R F E G D C T GI 3688609

FIGURE 5A

255 P D D L I N Q L T F I M D A N Q T Y L V S E R L E R E R N 2024773  
266 P E E L L R R L Q S V T N A N E V W L S Q A R A D R L E R N GI 3688609

285 Q T Q V L R Q Q Q D E A Y L A S L R A D Q E K E R K K R E E 2024773  
296 F T Q T L R R Q Q Q D E A Y E Q S L L A D E E K E R Q R Q R E GI 3688609

315 R E R K R R K E E E V Q Q Q K L A E E R R R Q N L Q E E K E 2024773  
326 R D A V R Q A E E A V E Q A R R D V E L R K E E I A R Q K I GI 3688609

345 R K L E C L P P E P S P D D P E S V K I I F K L P N D S R V 2024773  
356 E L A T L V P S E P A A D A V G A I A V V F K L P S G T R L GI 3688609

375 E R R F H F S Q S L T V I H D F L F S L K E S P E K F Q I E 2024773  
386 E R R F N Q T D S V L D V Y H Y L F C H P D S P D E F E I T GI 3688609

405 A N F P R R V L P C I P S E E W P N P P - - - - - T 2024773  
416 T N F P K R V L F S K A N L D A A G E T G T A K E T L T K GI 3688609

426 L Q E A G L S H T E V L F V Q D L T D E 2024773  
446 L Q A V G L K N R E L L F V N D L - E A GI 3688609

FIGURE 5B



1 MEYLSALNPSDDLRLRSVSNISSEFFGRRVWTS 3869790  
1 MEYLSAFNPNGLRLRSVSTVSSSEL SRRVWN S GI 3114594

31 APPPPQRPFRVCDHKRTIRKGLTAAATRQELI 3869790  
31 APPPPQRPFRVCDHKRTVRKGLTAAASLQELI GI 3114594

61 AKALETL L L L N G V L T L V L E E D G T A V D S E D F F 3869790  
61 DKVLETL L L L R G V L T L V L E E D G T A V D S E D F F GI 3114594

91 Q L L E D D T C L M V L Q S G Q S W S P T R S G V L S Y G I 3869790  
91 Q L L E D D T C L M V L E Q G Q S W S P - K S G M L S Y G I GI 3114594

121 G R E R P K H S K D I A R F T F D V Y K Q N P R D L F G S I 3869790  
120 G R E K P K H S K D I A R I T F D V Y K Q N P R D L F G S I GI 3114594

151 N V K A T F Y G L Y S M S C D F Q G L G P K K V L R E L L F 3869790  
150 N V K A T F Y G L Y S M S C D F Q G V G P K R V L R E L L F GI 3114594

181 W T S T L L Q G L G H M L L G I S S T L R H A V E G A E Q W 3869790  
180 G T S S Q L Q G L G H M L L G I S S T L R H V V E G A D R W GI 3114594

211 Q Q K G - - R L H S Y 3869790  
210 Q W H G Q R H L H S GI 3114594

FIGURE 6